

## **Project**

Energy Code: 2016 New York City Energy Conservation Code

Location: New York, New York

Construction Type: Single-family
Project Type: New Construction

Conditioned Floor Area: **2,204 ft2** Glazing Area **3%** 

Climate Zone: **4 (5362 HDD)** 

Permit Date: Permit Number:

Construction Site: Owner/Agent: Designer/Contractor: 3009 Building Lane Buildy Builderson Builder's Building Plans

ΤX

## Compliance: Passes using UA trade-off

Compliance: 2.6% Better Than Code Maximum UA: 268 Your UA: 261 Maximum SHGC: 0.40 Your SHGC: 0.23

The % Better or Worse Than Code Index reflects how close to compliance the house is based on code trade-off rules.

It DOES NOT provide an estimate of energy use or cost relative to a minimum-code home.

## **Envelope Assemblies**

| Assembly   | Gross Area<br>or<br>Perimeter | Cavity<br>R-Value | Cont.<br>R-Value | U-Factor | UA |
|--|-------------------------------|-------------------|------------------|----------|----|
| Ceiling area of home forming top of insulation envelope: Flat Ceiling or Scissor Truss                         | 2,204                         | 60.0              | 0.0              | 0.024    | 53 |
| Wall area of home forming sides of insulation envelope: Wood Frame, 16" o.c.                                   | 601                           | 24.0              | 0.0              | 0.054    | 27 |
| Window area of the home using energy efficient units: Vinyl/Fiberglass Frame:Double Pane with Low-E SHGC: 0.22 | 50                            |                   |                  | 0.310    | 16 |
| Energy efficient door unit: Glass<br>SHGC: 0.25  | 21                            |                   |                  | 0.350    | 7  |
| Energy efficient door unit: Solid  | 21                            |                   |                  | 0.200    | 4  |
| Wall area of home forming sides of insulation envelope: Wood Frame, 16" o.c.                                   | 612                           | 24.0              | 0.0              | 0.054    | 33 |
| Wall area of home forming sides of insulation envelope: Wood Frame, 16" o.c.                                   | 584                           | 24.0              | 0.0              | 0.054    | 30 |
| Energy efficient door unit: Solid  | 21                            |                   |                  | 0.200    | 4  |
| Wall area of home forming sides of insulation envelope: Wood Frame, 16" o.c.                                   | 563                           | 24.0              | 0.0              | 0.054    | 30 |
| Subfloor of home forming bottom of insulation envelope: All-Wood Joist/Truss:Over Unconditioned Space          | 2,204                         | 38.0              | 0.0              | 0.026    | 57 |

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| Compliance Statement: The proposed be calculations submitted with the permit a Conservation Code requirements in RES Inspection Checklist. | puilding design described here is consistent with the application. The proposed building has been design acheck Version 4.6.5 and to comply with the mandate. | ne building plans, specifications, and other<br>ned to meet the 2016 New York City Energy<br>atory requirements listed in the RES <i>check</i> |
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| Name - Title   | Signature   | Date   |
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## REScheck Software Version 4.6.5 Inspection Checklist Energy Code: 2016 New York City Energy Conservation Code

Energy code: 2010 New Tork city Energy conservation co

Requirements: 0.0% were addressed directly in the REScheck software

Text in the "Comments/Assumptions" column is provided by the user in the REScheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

| Section<br>#<br>& Req.ID                        | Pre-Inspection/Plan Review  | Complies?   | Comments/Assumptions |
|---|---|---|----------------------|
| 103.1,<br>103.2<br>[PR1] <sup>1</sup>           | Construction drawings and documentation demonstrate energy code compliance for the building envelope. Thermal envelope represented on construction documents.                             | ☐Complies ☐Does Not ☐Not Observable ☐Not Applicable |                      |
| R401.4,<br>Appendix<br>RB<br>[PR4] <sup>1</sup> | Detached one- and two-family<br>dwellings and multiple single-family<br>dwellings (townhouses) shall meet the<br>requirements of Appendix RB (Solar-<br>Ready requirements) of this code. | ☐Complies ☐Does Not ☐Not Observable ☐Not Applicable |                      |

Additional Comments/Assumptions:

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| Section<br>#<br>& Req.II       | Foundation Inspection   | Complies?   | Comments/Assumptions |
|--------------------------------|---|---|----------------------|
| 303.2.1<br>[FO11] <sup>2</sup> | A protective covering is installed to protect exposed exterior insulation and extends a minimum of 6 in. below grade. | □Complies □Does Not □Not Observable □Not Applicable |                      |

| 1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3) |
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| Section<br>#<br>& Req.ID  | Framing / Rough-In Inspection   | Plans Verified<br>Value | Field Verified<br>Value | Complies?   | Comments/Assumptions                             |
|---|---|-------------------------|-------------------------|---|--|
| 402.1.1,<br>402.3.4<br>[FR1] <sup>1</sup>                       | Door U-factor.  | U                       | U                       | □Complies □Does Not □Not Observable □Not Applicable | See the Envelope Assemblies<br>table for values. |
| 402.1.1,<br>402.3.1,<br>402.3.3,<br>402.5<br>[FR2] <sup>1</sup> | Glazing U-factor (area-weighted average).   | U                       | U                       | □Complies □Does Not □Not Observable □Not Applicable | See the Envelope Assemblies<br>table for values. |
| 303.1.3<br>[FR4] <sup>1</sup>                                   | U-factors of fenestration products are determined in accordance with the NFRC test procedure or taken from the default table.   |                         |                         | □Complies □Does Not □Not Observable □Not Applicable |  |
| 402.4.6<br>[FR20] <sup>1</sup>                                  | Fire separations between dwelling units in two-family dwellings and multiple single-family dwellings (townhouses) are insulated to no less than R-10 and the walls are air sealed in accordance with Section 402.4.1. |                         |                         | □Complies □Does Not □Not Observable □Not Applicable |  |
| 402.4.1.1<br>[FR23] <sup>1</sup>                                | Air barrier and thermal barrier installed per manufacturer's instructions.  |                         |                         | □Complies □Does Not □Not Observable □Not Applicable |  |
| 402.4.3<br>[FR20] <sup>1</sup>                                  | Fenestration that is not site built is listed and labeled as meeting AAMA /WDMA/CSA 101/I.S.2/A440 or has infiltration rates per NFRC 400 that do not exceed code limits.   |                         |                         | □Complies □Does Not □Not Observable □Not Applicable |  |
| 402.4.5<br>[FR16] <sup>2</sup>                                  | IC-rated recessed lighting fixtures<br>sealed at housing/interior finish<br>and labeled to indicate ≤2.0 cfm<br>leakage at 75 Pa.   |                         |                         | □Complies □Does Not □Not Observable □Not Applicable |  |
| 403.6<br>[FR19] <sup>2</sup>                                    | Automatic or gravity dampers are installed on all outdoor air intakes and exhausts.   |                         |                         | □Complies □Does Not □Not Observable □Not Applicable |  |

| 1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3) |
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| Section<br>#<br>& Req.ID                              | Insulation Inspection   | Plans Verified<br>Value | Field Verified<br>Value | Complies?   | Comments/Assumptions                             |
|---|---|-------------------------|-------------------------|---|--|
| 303.1<br>[IN13] <sup>2</sup>                          | All installed insulation is labeled or the installed R-values provided.   |                         |                         | □Complies<br>□Does Not                              |  |
| •   | provided.   |                         |                         | □Not Observable □Not Applicable                     |  |
| 402.1.1,<br>402.2.6<br>[IN1] <sup>1</sup>             | Floor insulation R-value.   | R<br>Wood<br>Steel      | R<br>Wood  Steel        | □Complies □Does Not □Not Observable □Not Applicable | See the Envelope Assemblies<br>table for values. |
| 303.2,<br>402.2.7<br>[IN2] <sup>1</sup>               | Floor insulation installed per manufacturer's instructions and in substantial contact with the underside of the subfloor, or floor framing cavity insulation is in contact with the top side of sheathing, or continuous insulation is installed on the underside of floor framing and extends from the bottom to the top of all perimeter floor framing members. |                         |                         | □Complies □Does Not □Not Observable □Not Applicable |  |
| 402.1.1,<br>402.2.5,<br>402.2.6<br>[IN3] <sup>1</sup> | Wall insulation R-value. If this is a mass wall with at least ½ of the wall insulation on the wall exterior, the exterior insulation requirement applies (FR10).  | R                       | R                       | □Complies □Does Not □Not Observable □Not Applicable | See the Envelope Assemblies<br>table for values. |
| 303.2<br>[IN4] <sup>1</sup>                           | Wall insulation is installed per manufacturer's instructions.   |                         |                         | ☐Complies ☐Does Not ☐Not Observable ☐Not Applicable |  |

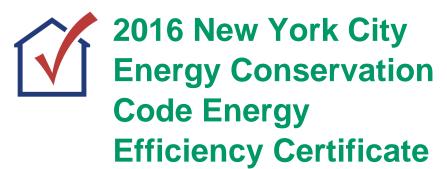
| 1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3) |
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| Section<br>#<br>& Req.ID  | Final Inspection Provisions  | Plans Verified<br>Value | Field Verified<br>Value | Complies?   | Comments/Assumptions                          |
|---|--|-------------------------|-------------------------|---|---|
| 402.1.1,<br>402.2.1,<br>402.2.2,<br>402.2.6<br>[FI1] <sup>1</sup> | Ceiling insulation R-value.  | R                       | R                       | □Complies □Does Not □Not Observable □Not Applicable | See the Envelope Assemblies table for values. |
| 303.1.1.1,<br>303.2<br>[FI2] <sup>1</sup>                         | Ceiling insulation installed per<br>manufacturer's instructions.<br>Blown insulation marked every<br>300 ft².  |                         |                         | ☐Complies ☐Does Not ☐Not Observable ☐Not Applicable |   |
| 402.2.3<br>[FI22] <sup>2</sup>                                    | Vented attics with air permeable insulation include baffle adjacent to soffit and eave vents that extends over insulation.   |                         |                         | ☐Complies ☐Does Not ☐Not Observable ☐Not Applicable |   |
| 402.2.4<br>[FI3] <sup>1</sup>                                     | Attic access hatch and door insulation ≥R-value of the adjacent assembly.  | R                       | R                       | □Complies □Does Not □Not Observable □Not Applicable |   |
| 402.4.1.3<br>[FI17] <sup>1</sup>                                  | written report of the results of the test is prepared and signed by the party conducting the test and provided to the code official. For buildings with two or more dwelling units air leakage rate must not exceed 0.3 cfm/ft2 of enclosure surface area within the testing area. Sampling is allowed for buildings with over 7 dwelling units. All other buildings have air leakage rate not exceeding 0.2 cfm/ft2. The written report includes: 1. the name and place of business of the party conducting the test; 2. the address of the building which was tested; 3. the conditioned floor area of dwelling, calculated in accordance with ANSI Z65, except that conditioned floor area shall include areas where the ceiling height is less than 5 feet; 4. measurement of the air volume lost at an internal pressurization of 0.2 inches w.g. (50 Pascals); 5. the date(s) of the test; 6. a certification by the party conducting the test of the accuracy of the test results; and 7. the signature of the party conducting the test. | ACH 50 =                | ACH 50 =                | □Complies □Does Not □Not Observable □Not Applicable |   |
| 401.3<br>[FI7] <sup>2</sup>                                       | Compliance certificate posted.   |                         |                         | ☐Complies ☐Does Not ☐Not Observable ☐Not Applicable |   |

|   | 1 High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3) |
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| Insulation Batters                      | D. Value   |      |
|---|------------|------|
| Insulation Rating                       | R-Value    |      |
| Above-Grade Wall                        | 24.00      |      |
| Below-Grade Wall                        | 0.00       |      |
| Floor                                   | 38.00      |      |
| Ceiling / Roof                          | 60.00      |      |
| <b>Ductwork (unconditioned spaces):</b> |            |      |
| Glass & Door Rating                     | U-Factor   | SHGC |
| Window                                  | 0.31       | 0.22 |
| Door                                    | 0.35       | 0.25 |
| Heating & Cooling Equipment             | Efficiency |      |
| Heating System:                         |            |      |
| Cooling System:                         |            |      |
| Water Heater:                           |            |      |
|   |            |      |
| Name:                                   | Date:      |      |

**Comments**